

REMARKS

Claims 1-60 remain in the application with claims 1, 14, 28, 43, and 59 being in independent form.

The Examiner rejected claims 1-60 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-54 of US Pat. No. 6,780,932. Such a rejection can be overcome by filing of a terminal disclaimer. Such a terminal disclaimer accompanies this response thus this rejection should be withdrawn.

The Examiner rejected claims 1-60 under 35 U.S.C. § 103(a) as being obvious over Heyman et al. US Pat. No. 6,780,932. This reference only qualifies as prior art under 35 U.S.C. § 102(e). Thus, the rejection can be overcome by showing that the rejection is disqualified under 35 U.S.C. § 103(c).

STATEMENT CONCERNING COMMON OWNERSHIP

Application serial number 10/608,247 and US Pat No. 6,780,932 were, at the time the invention of application serial number 10/608,247 was made, owned by and subject to an obligation of assignment to BASF Corporation. Evidence that both were in fact assigned to BASF Corporation can be found at Reel/Frame nos. 014260/0400 and 012914/0923. Thus, Heyman et al. US Pat. No. 6,708,932 no longer qualifies as prior art under 35 U.S.C. § 103(a).

The Examiner rejected claims 1-56 under 35 U.S.C. § 103(a) as being unpatentable over Davis et al. US Pat no. 6,172,164. The Examiner admits that Davis does not disclose a phosphorous compound being present during the polymerization process for formation of graft polyols. The Examiner then goes on to state:

“However, a phosphorous compound is still considering as inert material=non-reactive component. There is no evidence in the present

claims of using a said phosphorous compound as a transesterification catalyst. As a flame retardant compound such as a phosphate derivative, this compound can be present at any stage. There is no statement that a phosphorous compound is a reactive compound. Thus, a graft polyol can be modified by employing a phosphate compound during the process of making a graft polymer as a flame retardant compound, this is being obvious to a worker in the art."

Rejection of a claim under 35 U.S.C. § 103(a) based on a single reference requires that there be a specific showing by the Examiner of a suggestion or motivation to modify the teachings of the reference and that it be found within the reference itself. *See B.F. Goodrich Co. v. Aircraft Braking Sys. Corp.*, 72F.3d 1577, 1582 37 USPQ2d 1314, 1318 (Fed Sup 1996). In the present case the Examiner has already admitted that there is no teaching or suggestion for use of any phosphorous compounds during the polymerization process in Davis et al. In addition the Examiner has pointed to no showing of a motivation or suggestion in the reference itself to modify the cited reference thereby making Applicants' invention obvious. The Examiner also mistakenly suggests that the phosphorous compound in the present invention is an inert or non-reactive component. The Examiner then confusingly also says that there is no evidence in the present claims of using the phosphorous compound as a transesterification catalyst. Applicants have never suggested that the phosphorous compound is a transesterification catalyst so the Examiners' statement is confusing.

In the environment in which Applicants claim use of the phosphorous compound it clearly is not an inert compound. The Examiner is directed to Figures 1-3 of the present application, all of which demonstrate that the presence of a phosphorous compound as claimed leads to a dramatic reduction in the contaminating

transesterification product, which if allowed to develop can cause subsequent difficulties in formation of preformed stabilizers or final graft polyols as claimed in all of the independent claims of the present application. Thus, the use of the phosphorous compound as recited in all of the independent claims of the present application is not an inert non-reactive use of the phosphorous compound. The phosphorous compound is clearly having an effect and is acting in the reaction systems.

The Examiner is directed to page 14, paragraph [0036] wherein Applicants state that while not wishing to be bound by theory it is believed that the Lewis Acid catalyst used to form the macromer, which is subsequently used in the formation of preformed stabilizers or final graft polyols, is in fact the catalyst that is catalyzing the transesterification reaction that leads to formation of the transesterification products that are damaging to the subsequent graft polyol polymerization reaction. What Applicants have found is that use of the phosphorous compounds dramatically reduces or prevents the transesterification side reaction believed to be caused by the Lewis Acid catalyst.

Davis et al. discloses use of phosphate compounds as fire retardants in the formation of polyurethane foams. The Examiner can point to no suggestion, teaching or motivation within Davis et al. that would lead one of ordinary skill in the art to take a fire retardant that is added to the reaction system for producing a foam and utilize it in a graft polyol formation reaction to prevent transesterification products as recited in the independent claims of the present application. Utilizing the Examiner's logic that the phosphorous compound as disclosed in Davis is an inert material=non-reactive component there would be no motivation for one of ordinary skill in the art to utilize

such a component in the graft polyol reaction to reduce formation of transesterification products caused by Lewis Acid catalysts as Applicants are doing in the present invention and claiming in the present claims. Thus, because Davis et al. provides no teaching or suggestion that would lead one of ordinary skill in the art to modify the teachings of Davis et al. to disclose the invention as claimed in the present application the rejection of claims 1-56 of the present invention under 35 U.S.C. § 103(a) based on Davis et al. is improper and must be withdrawn.

The Examiner rejected claims 1-56 under 35 U.S.C. § 103(a) as being unpatentable over Davis et al. '164 in view of Heyman et al. '932 or Seidel et al. US Pat. No. 6,316,584. As discussed above Heyman et al. has been removed as a reference. The Examiner suggests that Seidel et al. discloses a transesterification catalyst that is a phosphorous compound and points to column 4, lines 18-19 and 22. The Examiner then states

“It would have been obvious to one of ordinary skill in the art to modify a graft polyol in Davis by employing a phosphorous compound as a transesterification catalyst for polyols, col. 4, lines 18-22 and 52-57, because any modification or improvement can be expected in graft polyol in Davis invention during the polymerization process.”

Applicants do not understand Examiner's analysis of this combination of references. As a first matter Seidel et al. does not disclose a phosphorous compound as a transesterification catalyst. The catalysts disclosed in Seidel et al. are coprecipitates prepared by simultaneous hydrolytic precipitation of a titanium compound and a metallic compound of a metal selected from periodic groups IA, IIA, VIIIA, IB, IIB, IIIB, and IVB. The only mention of phosphorous

compounds is their use to block the catalytic activity of these new coprecipitates. Applicants also do not understand what the Examiner means by suggesting that any modification or improvement can be expected in graft polyol in Davis invention during the polymerization process. There is simply no basis for this blanket statement by the Examiner. Seidel et al. utilizes phosphorous compounds to block transesterification reactions in environments completely unlike those of the graft polyol environment that is claimed in Applicants present claims. As discussed above there is no suggestion in Davis of the utilization of phosphate compounds to improve formation of graft polyols or preformed stabilizers as recited in the present claims. Because the combination of Davis et al. and Seidel et al. does not make each and every limitation of the independent claims of the present application obvious the rejection of these claims, and the claims which depend therefrom, under 35 U.S.C. § 103(a) based on Davis et al. in combination with Seidel et al. is improper and should be withdrawn.

The Examiner rejected claims 57-60 under 35 U.S.C. § 103(a) as being unpatentable over Davis et al. in view of Huang et al. US Pat No. 5,223,570 and further in view of Heyman et al. US Pat No. 6,780,932. As discussed above Heyman has been removed as a reference. As discussed Davis et al. disclosed formation of graft polyols and makes no disclosure of use of any phosphorous compounds during this polymerization reaction. Similarly Huang et al. discloses formation of graft polyols utilizing preformed intermediate graft polyols similar to a preformed stabilizer as described in the present invention, but Huang et al. does not disclose use of any phosphorous compound during any stage of the polymerization reaction. As discussed above, Davis et al. does not make use of a phosphorous compound during a graft polyol polymerization reaction obvious and this deficiency is not overcome by Huang et al. which also does not

disclose any utilization of phosphorous compounds during any graft polyol polymerization reaction. Because all of the rejected claims include limitations not found in nor made obvious by the combination of Davis et al. and Huang et al. rejection of these claims, and the claims which depend therefrom under 35 U.S.C. § 103(a) based on the cited references is improper and should be withdrawn.

Applicants' attorney respectfully submits that the claims as amended are now in condition for allowance and respectfully requests such allowance.

Respectfully submitted,

HOWARD & HOWARD ATTORNEYS



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